

POLE TO BE WIRED
(Transformer Base & Anchor Base)

I. Quantity

The base bid shall include the indicated number of poles to be wired as shown on drawing **01S0130** and hereinafter specified and located as shown on the drawings.

II. Material

- a. Ground Rod - The ground rod shall be a minimum of ½" x10' copperclad, Porcelain Product #8430; Blackburn #5010, Galvan or approved equal.
- b. Ground Wire - The ground wire to the pole shall be #6 AWG solid copper.
- c. Ground Rod Clamp - The ground rod clamp shall be ½" copper alloy, HEX or square head screw with 1/2"-13UNC; Joslyn #J8591H; Blackburn #JAB ½H or approved equal.
- d. Crimp Connectors - The crimp compression connectors shall be copper, Burndy YC2C4 and YC4C4, Penn Union or approved equal.
- e. Compression Terminal Lug - The copper lug shall one hole type to fit ¼" machine bolt. The seamless copper tubing shall be a minimum of 1" and be marked for #4 conductor. The lug shall be hot tin dipped to provide corrosion resistance and be HOMAC L4-14, Burndy or approved equal.
- f. Fuse Kit – The fuse kit for the phase (hot) wire shall have a super lag type fuse. The fuse kit shall be Buchanan 82S-EAFB1-C, or approved equal. Use KTK-3 amp fuse for 250W HPS/480V luminaire or less, and KTK-6 amp fuse for 400W HPS/480V luminaire._
- g. Wire - The pole and bracket wire shall be #10AWG copper, 7 strand, thermosetting chemically crosslinked polyethylene insulation, 600 volt. The hot wire shall be black and neutral shall be white.
- h. Cable Grip - The cable grip shall be for insulated wire.
- i. Tape –Tape shall be 1/2" vinyl tape. The tape shall be coded Red or White, Scotch #35, Tape-Rite Co. or approved equal.

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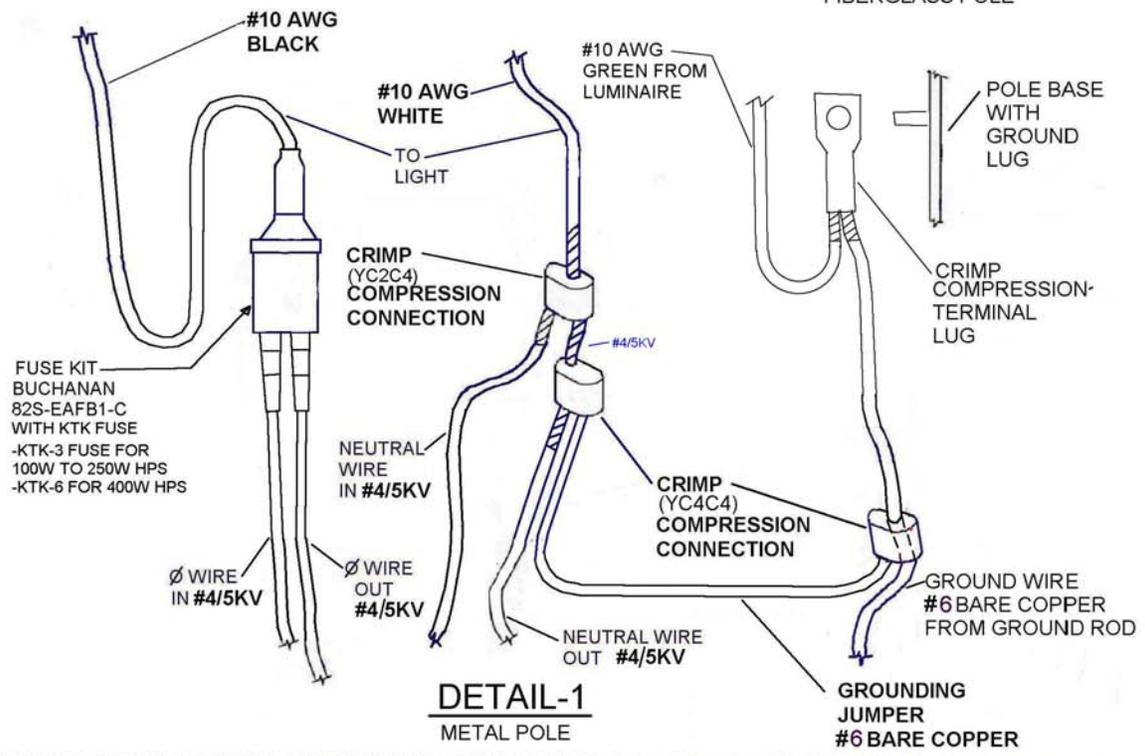
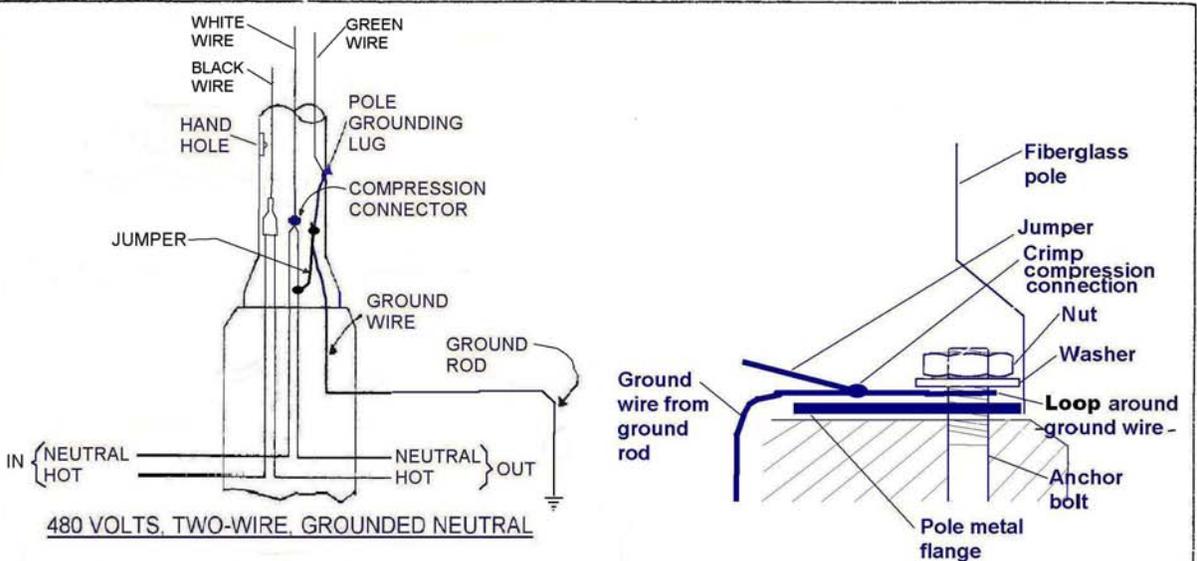
III Installation

- a. The ground rod shall be installed in un-disturbed earth. **Testing shall indicate 25 ohms or less.**
- b. To Ground a Metal Pole - The bare ground wire shall be connected to the ground rod with a ground rod clamp. The ground wire shall be crimped to the terminal lug and bolted to the pole, and tightened with a nut and washer until secure. A jumper ground wire shall be crimped to the main ground wire and bonded to the #4 neutral (black with white tracer) by using a crimp connection. White tape shall be wrapped around the #4 neutral wire five (5) times below the crimp. See Drawing 01S130, "Detail 1".
- c. To Ground a Fiberglass Pole - The bare ground wire shall be connected to the ground rod with a ground rod clamp. The ground wire shall be wrapped around an anchor bolt and tightened with the anchor nut and washer until secure. See Drawing 01S130 "Detail 2". A jumper ground wire shall be crimped to the main ground wire and bonded to the #4 neutral (black with white tracer) by using a crimp. White tape shall be wrapped around the #4 neutral wire five (5) times below the crimp.
- d. The #4, phase (hot) wire and the black, #10 pole wire shall be connected to the terminal block fuse kit. Red tape shall be wrapped five (5) times around the hot wire below the fuse kit.
- e. The #10 black wire shall run from the fuse kit through the pole shaft to the luminaire.
- f. The white #10 wire shall run from the compression crimp of the #4 neutral (black with white tracer) and the ground wire, through the pole shaft to the luminaire.
- g. The green #10 wire shall run from the compression crimp of the #4 neutral (black with white tracer) and the ground wire, through the pole shaft to the luminaire.
- h. The #10 black, Green and white pole wires shall be supported by the cable grip near the mast arm or luminaire entrance.

IV. Quotation

The poles to be wired shall be quoted as a unit price in the appropriate places of this document.

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MIS-41



MEL & P MUNICIPAL ELECTRIC LIGHT & POWER SYSTEM CITY OF COLUMBUS, OHIO DEPT. OF UTILITIES & AVATION - DIV. OF ELECTRICITY		<h1>POLE WIRING</h1> <h2>480 VOLT -2 WIRE</h2>		
		SCALE NONE	DRAWN AMPUDIA 9/03	DRAWING NO. 01S0130
REVISIONS 9/11/03 9/15/03 10/24/03 12/10/03 03/23/05 08/25/05 11/17/06		C. O. NUMBER	APPROVED	SHEET 1 OF 1